

REMARKS

Please reconsider this application in view of the above amendments and the following remarks.

- Claims 1-4 and 6-12 are pending.
- Claims 1-4 and 6-12 are rejected.

A variety of typographical and grammatical errors has been corrected in the specification, as laid out above. Since these amendments correct obvious errors, they do not add new matter to the specification.

Claim amendments

Claim 1 has been amended to include the limitations of claim 5. Moreover, it has been amended to correct obvious errors. These amendments do not amount to new matter.

Claim 5 has been canceled.

Claim 12 is newly added and contains a narrower mean void ratio limitation.

Claims Rejections

Claims 1-8 and 10-11 are rejected under 35 U.S.C. 103 (a) over Hasegawa et al. (US 4832984).

Claim 9 is rejected under 35 U.S.C. 103 (a) over Hasegawa et al. in view of Sugaya et al. (US 2002/0027587).

The Examiner takes the position that although a mean void ratio of the outermost layer being 30 to 70% is not explicitly taught by Hasegawa, one having ordinary skill in the art would recognize that these values could be obtained by obvious routine experimentation.

The Examiner assumes this true without any presentation of a factual underpinning for the position. While an Examiner may take official notice of facts outside the record, doing so is proper only when those facts are capable of instant and unquestionable verification. M.P.E.P. § 2144.03. Moreover, we traverse that official notice and ask that the Examiner replace it with a reference showing that routine experimentation would lead a skilled artisan to a mean void ratio of the outermost layer to be 30 to 70%.

Furthermore, we do not agree with the Rejection over Hasegawa based on the following reasons.

(1) The surface layer disclosed in Hasegawa is also called the ink transporting layer. (see column 3, lines 21 - 22).

The ink transporting layer may have any constitution, but may be preferably constituted primary of particles and a binder. (see column 4, 52 - 55).

As such particles, particularly preferable particles in the recording medium may include organic particles of highly hydrophobic thermoplastic resins, thermosetting resins, etc. (see column 4, 57 - 63).

From the above-cited description, Hasegawa uses organic resin particles and a resin in the surface layer.

(2) When there is no intentional motivation, the layer system disclosed in Hasegawa could not have a mean void ratio of the outermost layer of 30 to 70% of the present claim. Such layer system has a lower mean void ratio value. The theoretical void ratio produced by closest packing of the same sized particles is 26%. And usually, the space formed by large particles is filled with small particles resulting in a void ratio smaller than 26%.

(3) Hasegawa is not motivated to achieve a large mean void ratio such as 30 to 70% described in the present claim. Hasegawa does not teach to achieve a large mean void ratio in the surface layer. One ordinary skill in the art cannot achieve the subject matter of currently amended claim 1 by obvious routine experimentation.

(4) In order to obtain a large mean void ratio such as 30 to 70% of the currently amended claim 1, a specific method is required. One of which is including a filler in an amount of 20% to 80% based on the thermoplastic resin as is described in the present claim 3. Hasegawa does not teach incorporating such high amount of filler in the surface layer.

(5) Hasegawa describes that the ink transporting layers may contain inorganic pigments (see column 5, lines 5 - 6). The amount of added inorganic pigments is "in a minute amount to such an extent that the pigment will not obstruct its ink permeability" (see column 5, lines 11 - 13).

This suggests to one of ordinary skill in the art that even if Hasegawa teaches adding inorganic pigments to the surface layer, the amount of the inorganic pigments is limited. In addition, none of the Examples of Hasegawa uses inorganic pigments in the surface layer.

These indicate that Hasegawa does not teach making a mean void ratio of the present invention.

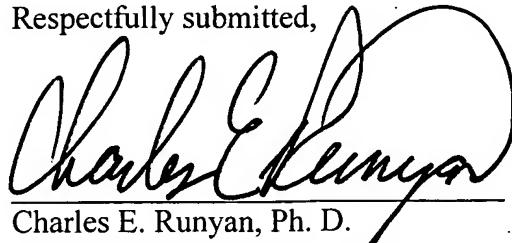
We do not agree with the Rejection of claim 9 over of Hasegawa in view of Sugaya. Because the surface layer of Sugaya contains only thermoplastic resin particles, and Sugaya does not teach to achieve a void structure in the surface layer.

The inventive effect achieved by setting a mean void ratio of 30 - 70% is demonstrated by the experimental results shown in Table 1 at page 72 and Table 2 at page 76 of the present specification.

In view of these remarks, we ask that the rejection of the claims be removed.

Since all claims are in a condition for allowance, please issue a Notice of Allowability so stating. If I can be of any help, please contact me.

Respectfully submitted,



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